

Figure B-25: Wooden Weir Curb Inlet Protection

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**WOODEN WEIR CURB INLET
PROTECTION**

CONSTRUCTION STANDARDS AND DETAILS



PC-25
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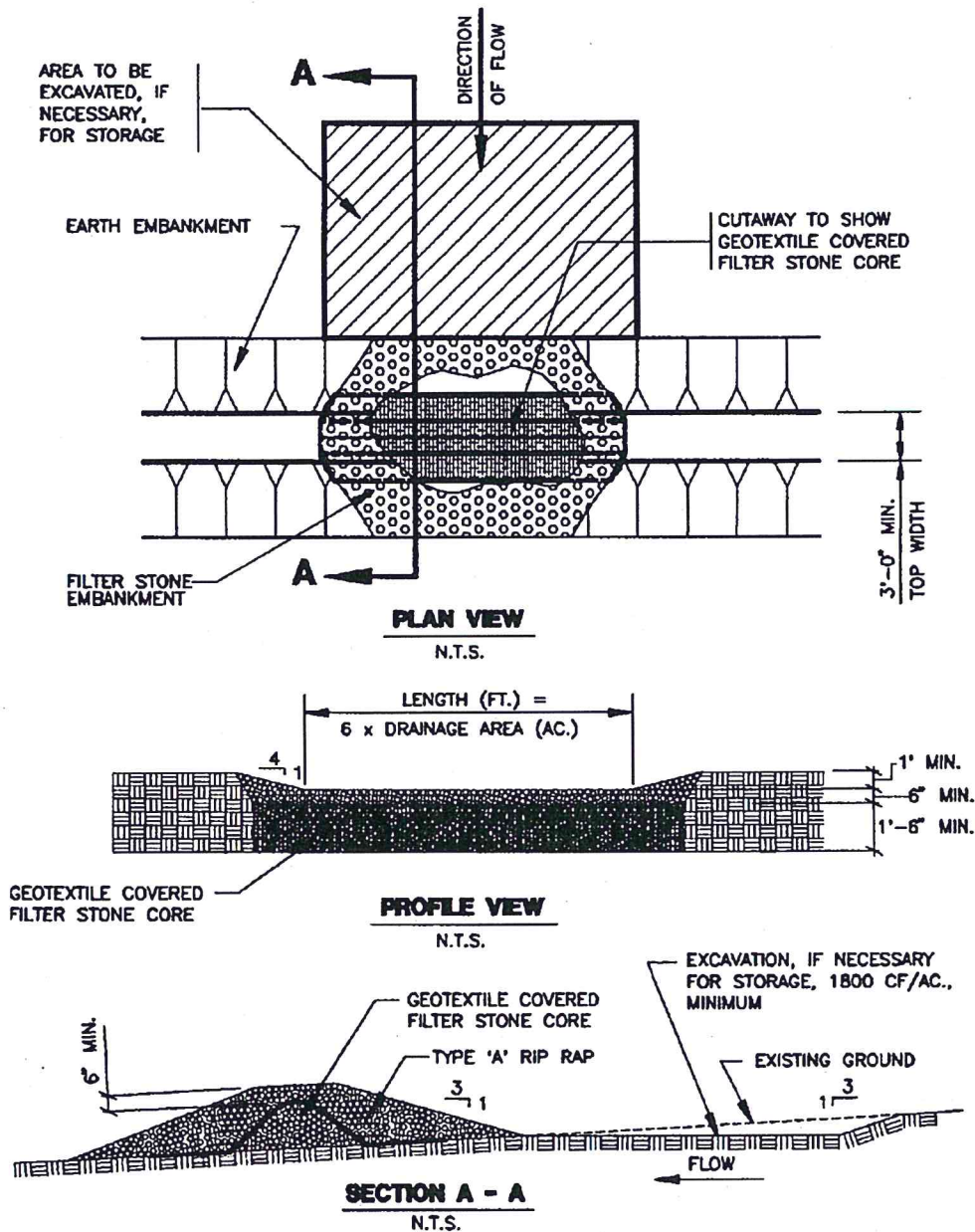


Figure B-26: Schematic Diagram of a Sediment Trap

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SEDIMENT TRAP DETAIL

CONSTRUCTION STANDARDS AND DETAILS



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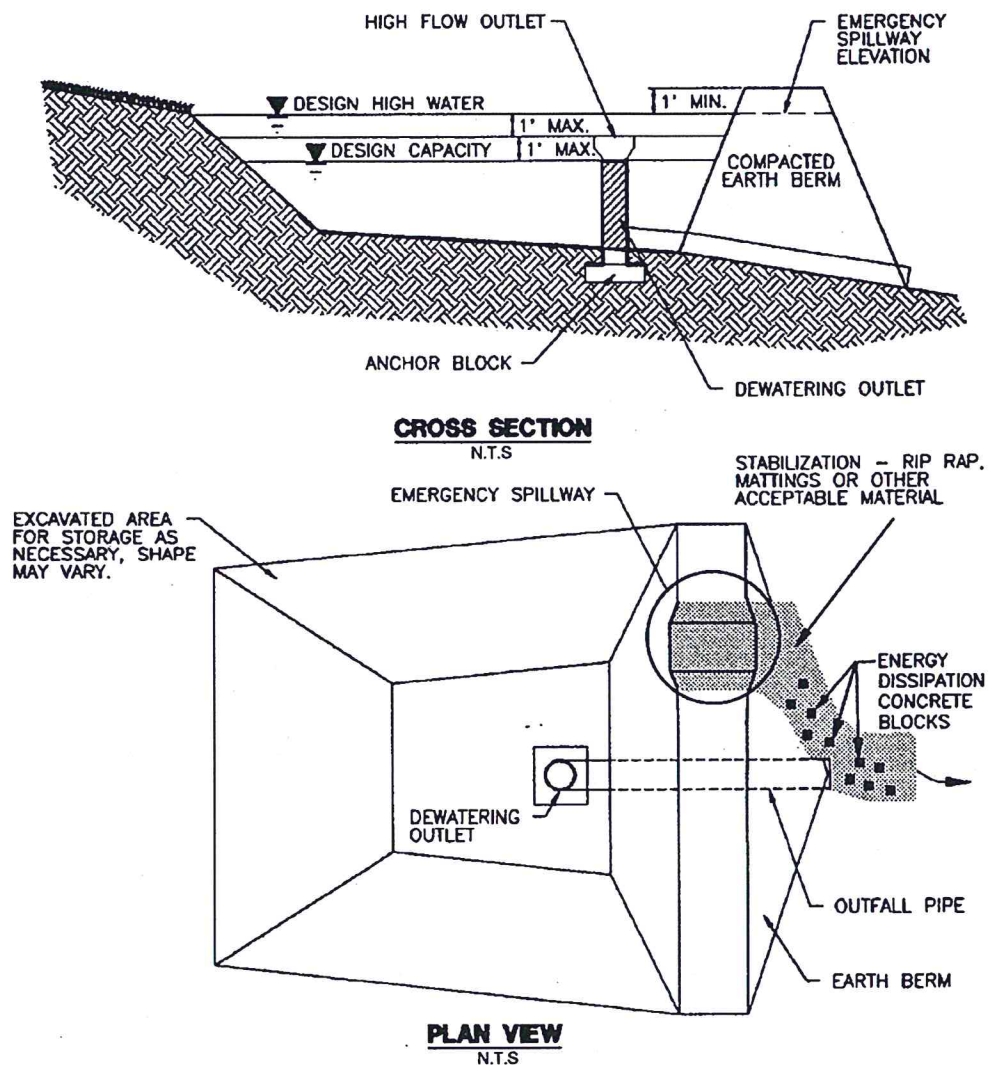


Figure B-27: Schematic of a Sediment Basin

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SEDIMENT BASIN
DETAIL

CONSTRUCTION STANDARDS AND DETAILS



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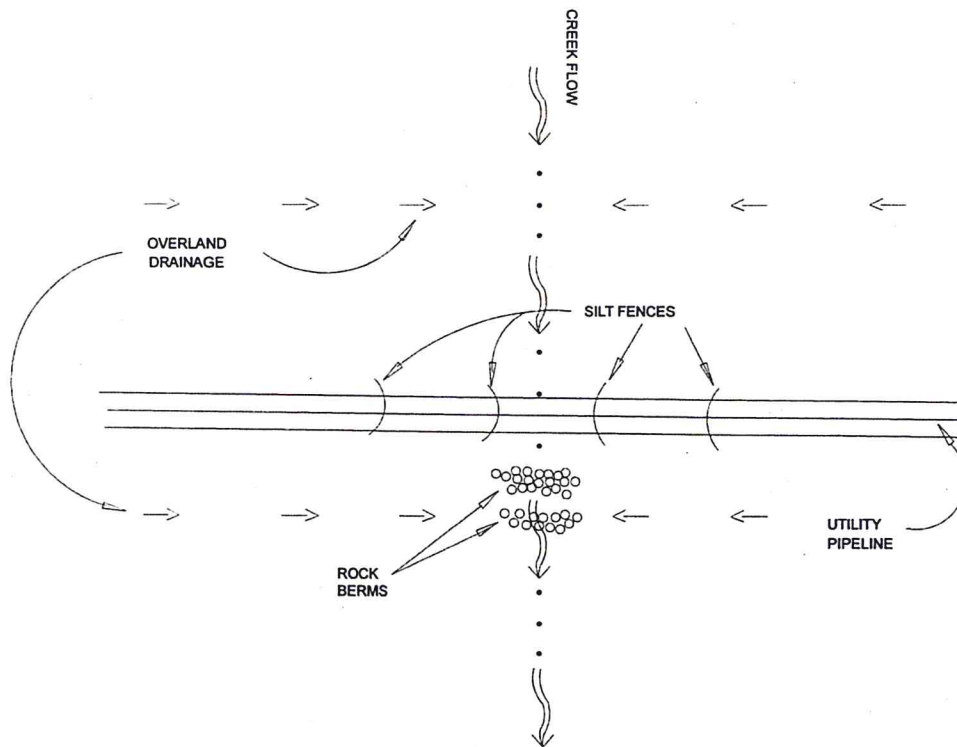


Figure B-28: Utility Crossing or Excavation within Creek Schematic

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**UTILITY CROSSING OR EXCAVATION
WITHIN CREEK SCHEMATIC**

CONSTRUCTION STANDARDS AND DETAILS



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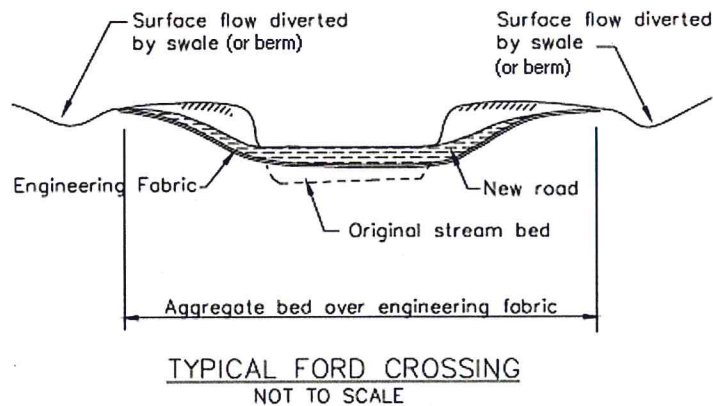
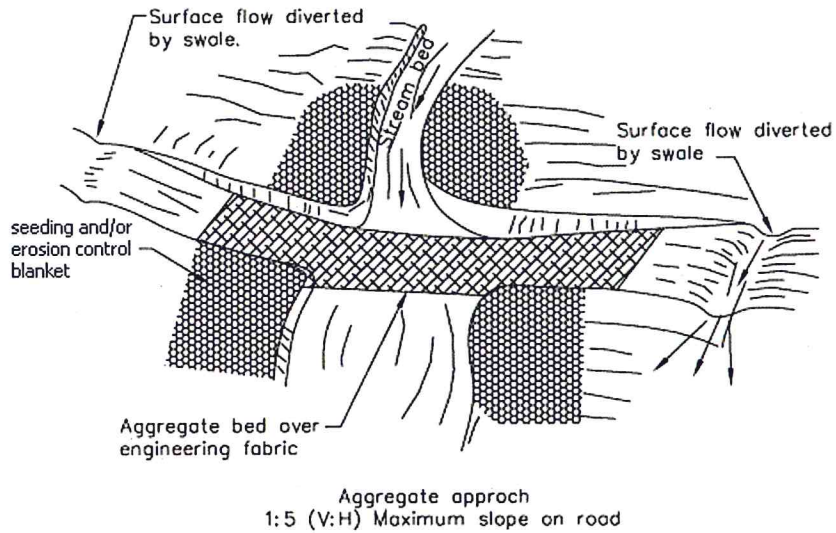


Figure B-29: Typical Temporary Ford Crossing Schematic

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**TYPICAL TEMPORARY
FORD CROSSING SCHEMATIC**
CONSTRUCTION STANDARDS AND DETAILS



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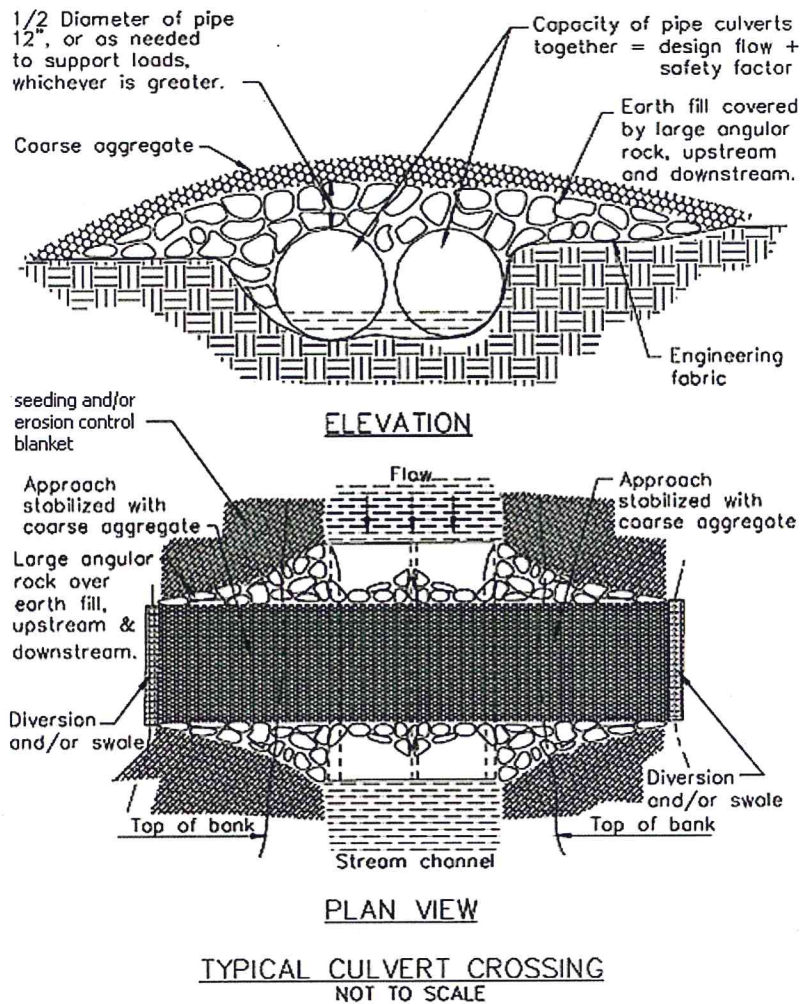


Figure B-30: Typical Temporary Culvert Crossing Schematic

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**TYPICAL TEMPORARY
CULVERT CROSSING SCHEMATIC**

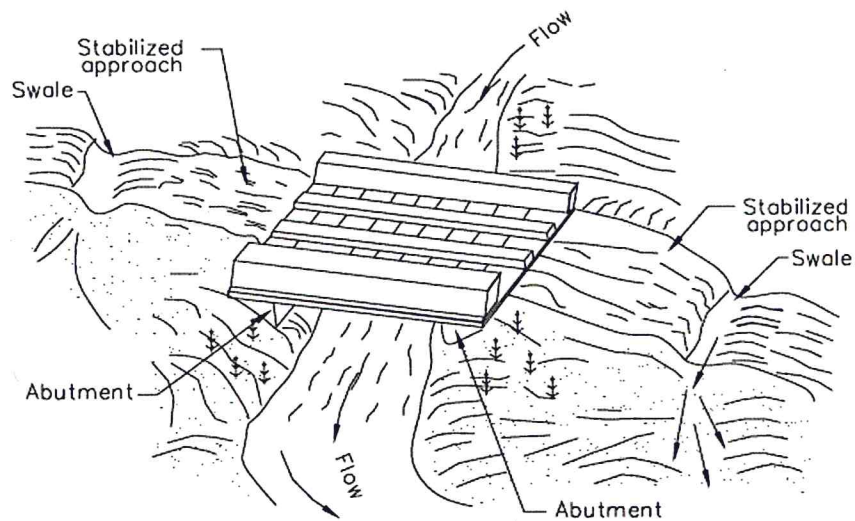
CONSTRUCTION STANDARDS AND DETAILS



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NOTE:
Surface flow of road diverted
by swale and/or dike.

TYPICAL BRIDGE CROSSING
NOT TO SCALE

Figure B-31: Typical Temporary Bridge Crossing Schematic

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**TYPICAL BRIDGE
CROSSING**

CONSTRUCTION STANDARDS AND DETAILS



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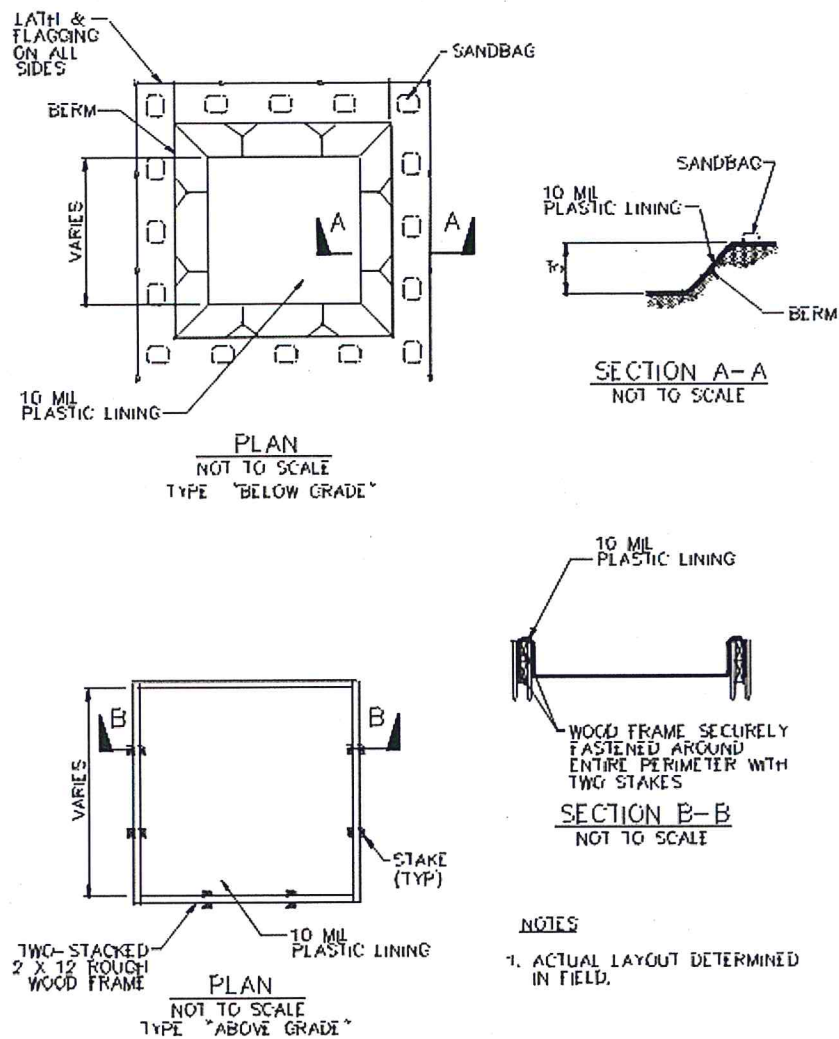


Figure B-32: Schematic Diagrams of Concrete Washout Areas

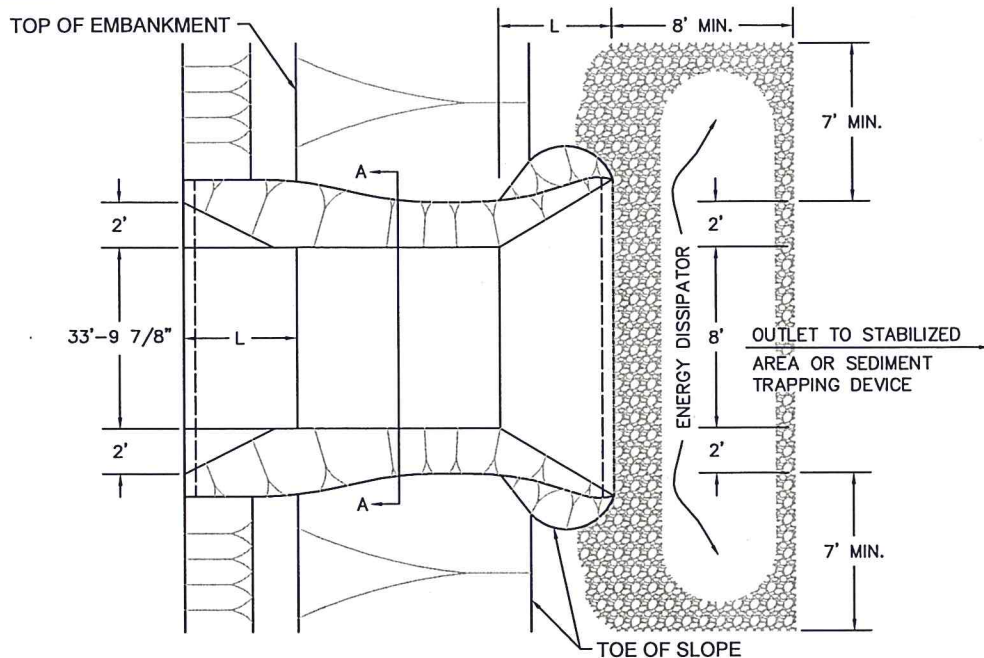
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CONCRETE WASHOUT
AREAS

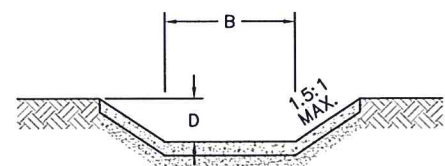
CONSTRUCTION STANDARDS AND DETAILS



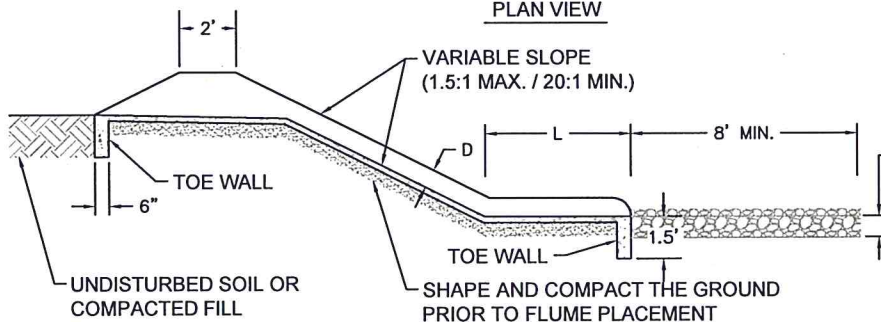
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PLAN VIEW



SECTION A - A



PROFILE VIEW

GENERAL NOTES

1. THE GROUP/SIZE IS A DESIGNATOR FOR THE DIMENSIONS OF THE PAVED FLUME. THE GROUP/SIZE IS DESIGNATED BY A LETTER (A OR B) AND THE BOTTOM (B) DIMENSION. THE APPROPRIATE SIZE SHALL BE INDICATED ON THE CONSTRUCTION PLANS.
2. FOR HIGH VELOCITY FLOWS, THE AGGREGATE OF THE ENERGY DISSIPATOR SHOULD BE SECURED WITH 20-GAUGE GALVANIZED WOVEN WIRE MESH WITH 1" DIAMETER HEXAGONAL OPENINGS. THE AGGREGATE SHOULD BE PLACED ON THE MESH TO THE DIMENSIONS SPECIFIED. THE MESH SHALL BE FOLDED AT THE UPSTREAM SIDE OVER THE AGGREGATE AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS.
3. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

PAVED FLUME USAGE GUIDELINES

A PAVED FLUME SHOULD BE CONSTRUCTED TO DRAIN CONCENTRATED SURFACE RUNOFF SAFELY DOWN SLOPES WITHOUT CAUSING EROSION. THE DRAINAGE AREA CONTRIBUTING RUNOFF TO A PAVED FLUME SHOULD NOT EXCEED THAT GIVEN IN THE DESIGN CRITERIA ABOVE. THE PAVED FLUME SHOULD BE SIZED TO DRAIN THE PEAK RATE OF RUNOFF WITHOUT OVERTOPPING THE EMBANKMENT AT THE EARTH DIKE ENTRANCE. A 25 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE.

DESIGN CRITERIA					
GROUP / SIZE	B BOTTOM WIDTH	H MIN.	D MIN.	L MIN.	MAXIMUM DRAINAGE AREA
A-2	2'	1.5'	8"	5'	5 ACRES
A-4	4'	1.5'	8"	5'	8 ACRES
A-6	6'	1.5'	8"	5'	11 ACRES
A-8	8'	1.5'	8"	5'	14 ACRES
A-10	10'	1.5'	8"	5'	18 ACRES
B-4	4'	2'	10"	6'	14 ACRES
B-6	6'	2'	10"	6'	20 ACRES
B-8	8'	2'	10"	6'	25 ACRES
B-10	10'	2'	10"	6'	31 ACRES
B-12	12'	2'	10"	6'	36 ACRES

NOTE:FOR ILLUSTRATIVE PURPOSES ONLY

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LINED WATERWAY
OR OUTLET

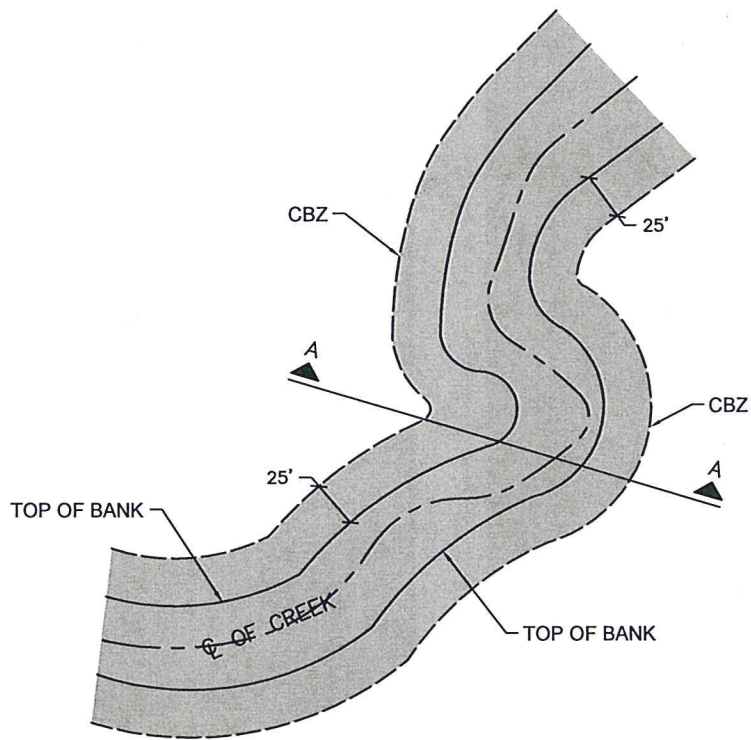
CONSTRUCTION STANDARDS AND DETAILS



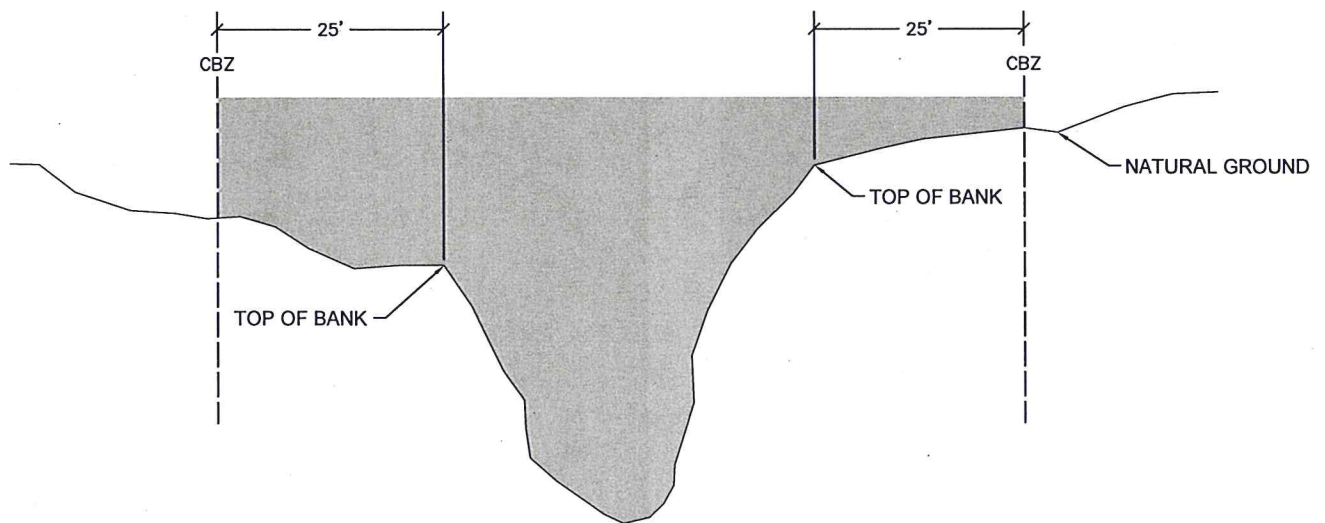
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PLAN VIEW



PROFILE
SECTION A-A

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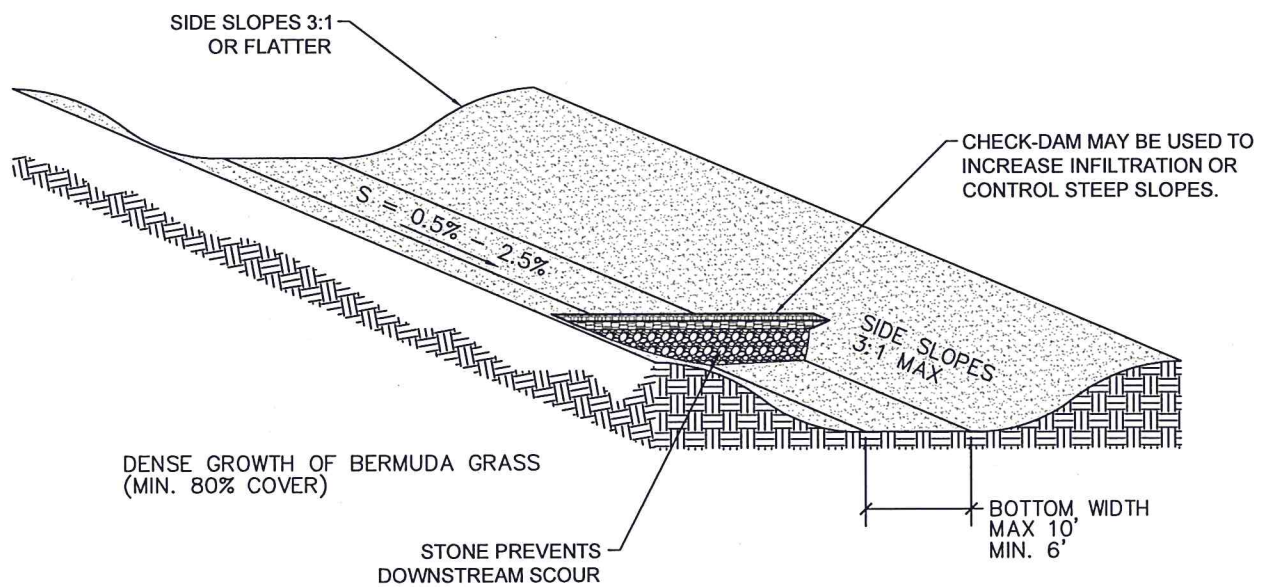
**CREEK BUFFER
ZONE**

CONSTRUCTION STANDARDS AND DETAILS



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SWALE SLOPES AS CLOSE
TO ZERO AS DRAINAGE
WILL PERMIT



NOTE: FOR ILLUSTRATIVE
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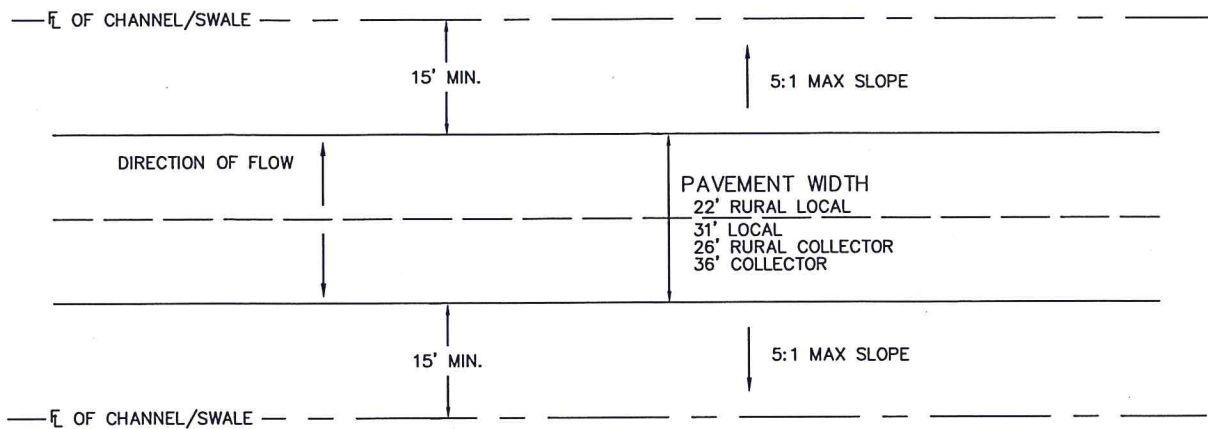
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**VEGETATED
SWALES**

CONSTRUCTION STANDARDS AND DETAILS

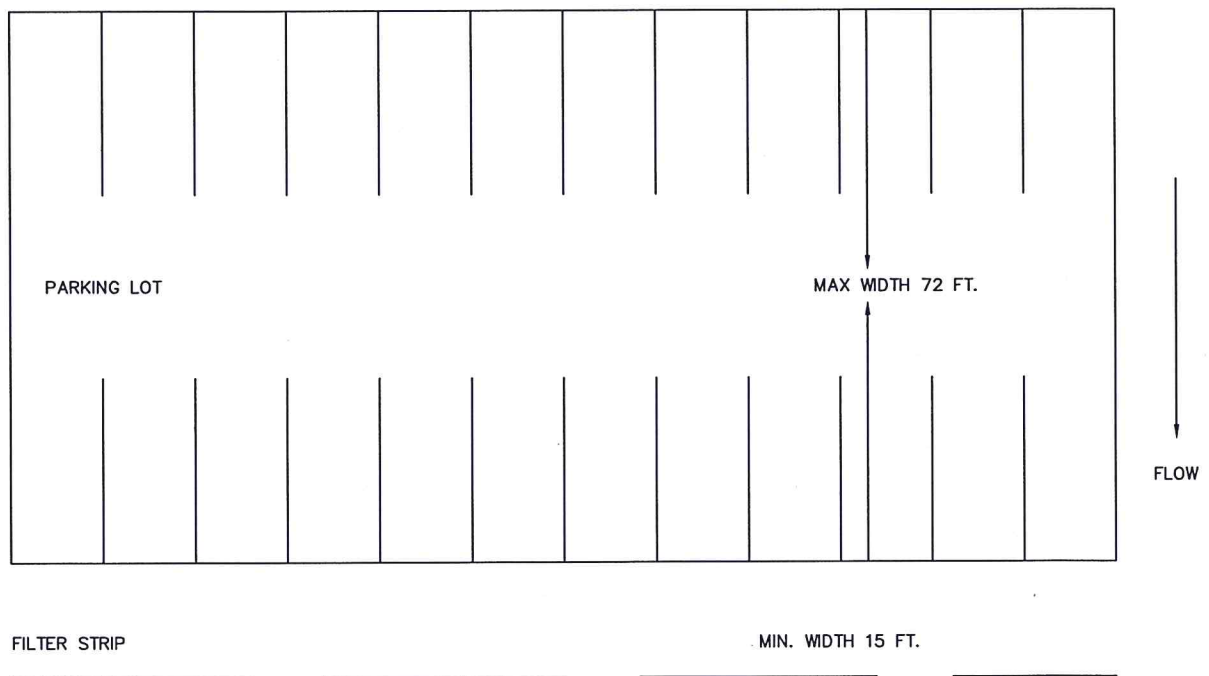


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NOTE 1: MINIMUM VEGETATIVE COVER (BERMUDA GRASS) = 80%

VEGETATED FILTER STRIP ALONG ROADWAY



VEGETATED FILTER STRIP ALONG PARKING LOT

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

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DEPARTMENT OF PUBLIC WORKS

**VEGETATED FILTER
STRIPS**

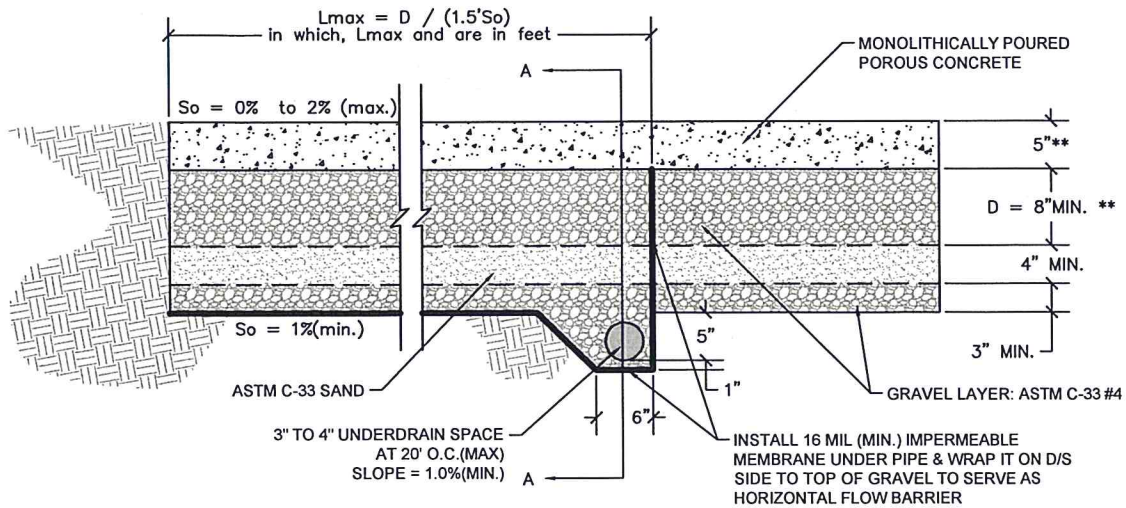
CONSTRUCTION STANDARDS AND DETAILS



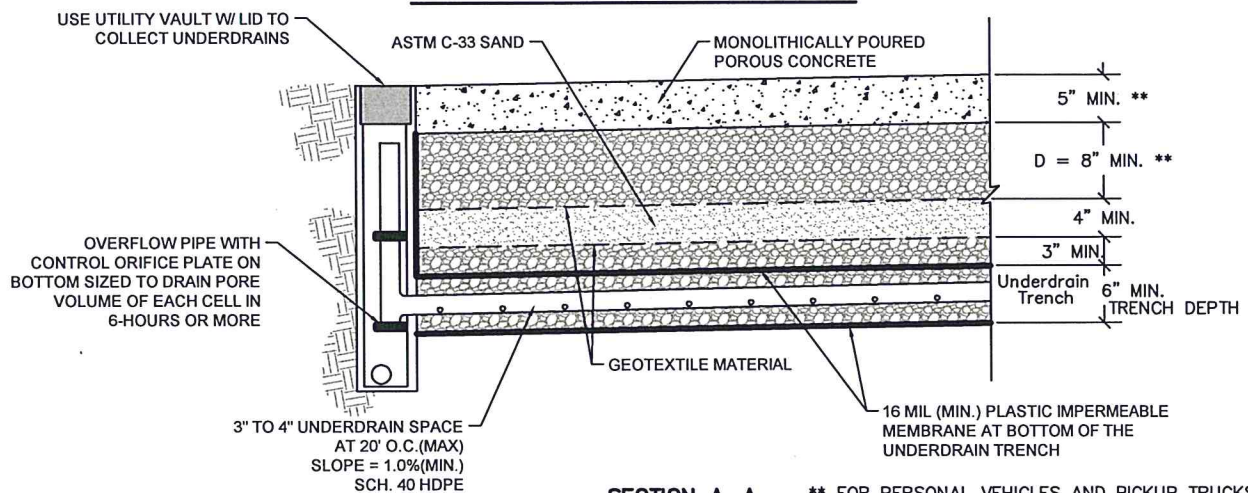
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**POURED CONCRETE POROUS PAVEMENT (PCP)
SECTION WITH AN UNDERDRAIN SYSTEM**



SECTION A-A

** FOR PERSONAL VEHICLES AND PICKUP TRUCKS. THICKER SECTION MAY BE REQUIRED FOR HEAVIER VEHICLES. CONSULT WITH PAVEMENT ENGINEER FOR NEEDED THICKNESS OF CONCRETE SLAB.

SCHEMATIC OF PERMEABLE CONCRETE INSTALLATION (AFTER UCFCD, 2004)

RECOMMENDATIONS FOR PERMEABLE CONCRETE WITHOUT UNDERDRAIN

BASE MATERIALS: BASE MATERIAL MUST CONSIST OF CLEAN, DURABLE, ASTM C-33 NO.4 AGGREGATE 8 INCHES THICK.

GEOTEXTILE FABRIC: A LAYER OF GEOTEXTILE FABRIC COMPLYING WITH THE MINIMUM SPECIFICATIONS LISTED BELOW ARE TO BE PLACED ON TOP OF THE NATURAL SUBSOIL PRIOR TO PLACING BASE MATERIAL. THE FABRIC SHOULD BE EXTENDED UP THE THE NATURAL EARTH SIDES AND OVER THE TOP OF ANY ADJACENT BERM. THE PURPOSE OF THE FABRIC IS TO PREVENT MIGRATION OF FINE MATERIAL FROM SUBSOIL INTO THE GRAVEL.

PROPERTY	TEST METHOD	UNIT	SPECIFICATIONS
Unit Weight		oz/yd ²	8
Filtration Rate		in/sec	0.08
Puncture Strength	ASTM D-751*	lb	125
Mullen Burst Strength	ASTM D-751	psi	400
Tensile Strength	ASTM D-1682	lb	200
Equiv. Opening Size	US Standard Sieve	No.	80

*modified

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**POROUS
CONCRETE**

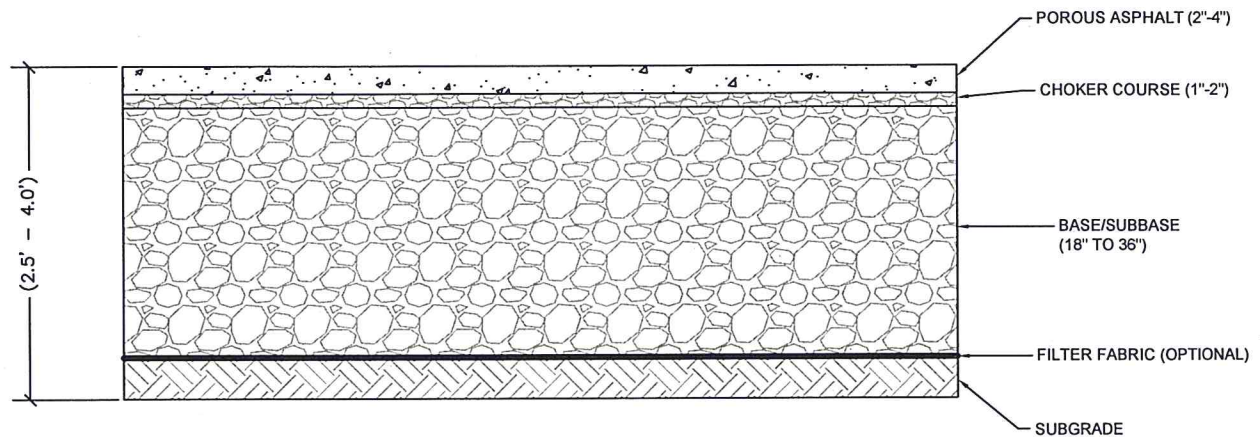
CONSTRUCTION STANDARDS AND DETAILS



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**TABLE 1. ASPHALT MIX
(ADAMS, 2003)**

SIEVE SIZE	% PASSING
1/2 IN	100
3/8 IN	95
#4	35
#8	15
#16	10
#30	2
PERCENT BITUMINOUS ASPHALT 5.75-6.0% BY WEIGHT	

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

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**POROUS
ASPHALT**

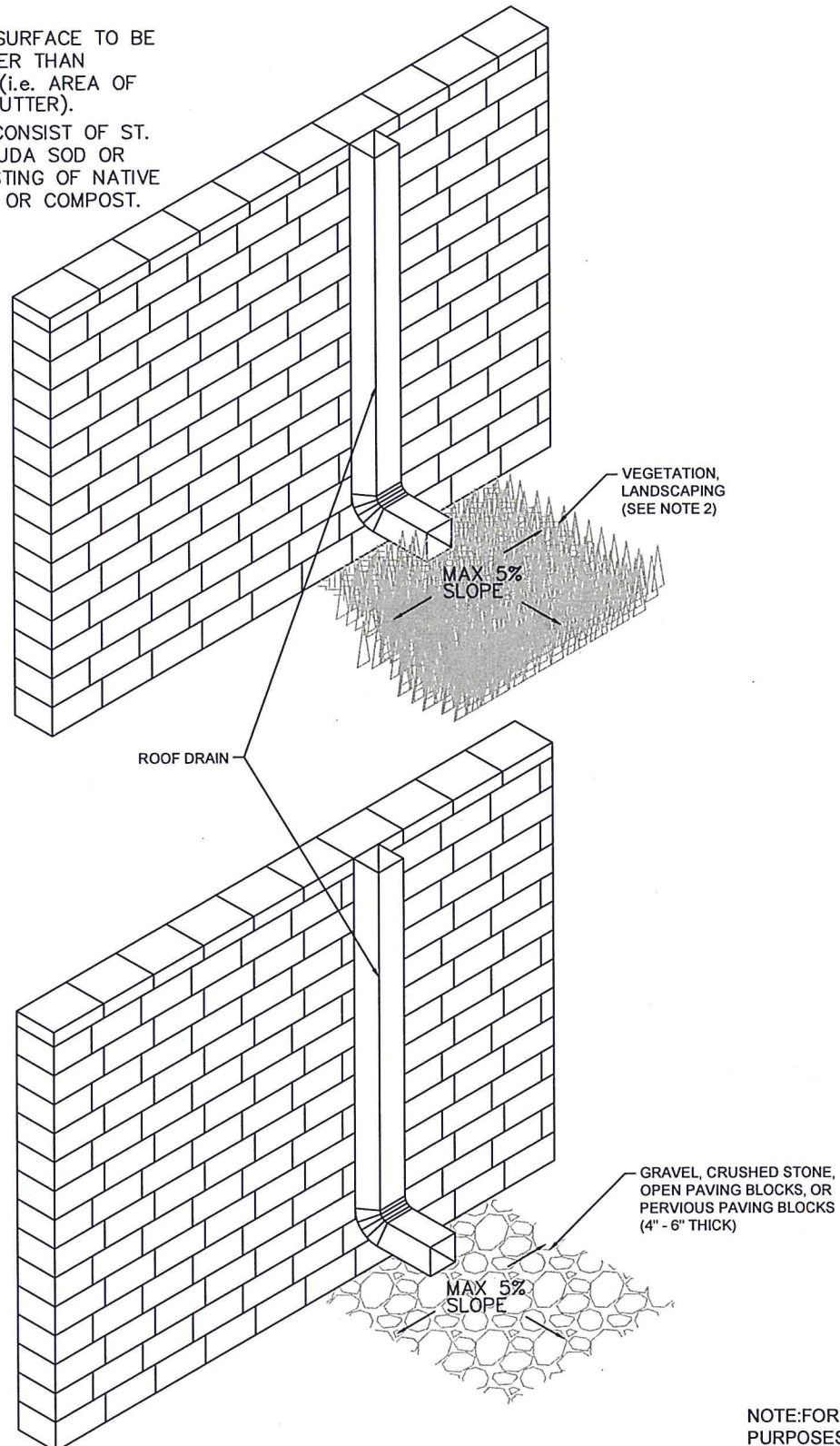
CONSTRUCTION STANDARDS AND DETAILS



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NOTES:

- 1) AREA OF PERVIOUS SURFACE TO BE EQUAL TO OR GREATER THAN CONTRIBUTING AREA (i.e. AREA OF ROOF DRAINING TO GUTTER).
- 2) VEGETATION SHALL CONSIST OF ST. AUGUSTINE OR BERMUDA SOD OR LANDSCAPING CONSISTING OF NATIVE PLANTS WITH MULCH OR COMPOST.



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**MINIMIZE DIRECTLY CONNECTED
IMPERVIOUS AREA**

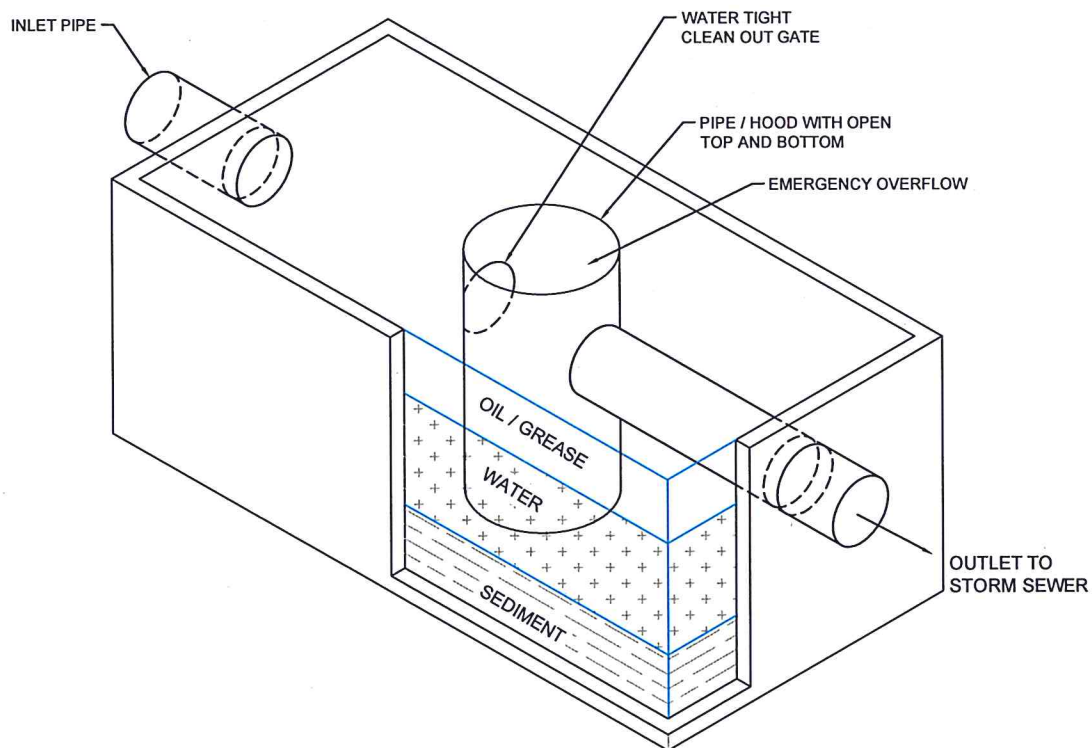
CONSTRUCTION STANDARDS AND DETAILS



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CROSS SECTION VIEW

OIL/GRIT SEPARATOR:
SC - TYPE SEPARATOR

NOTE:FOR ILLUSTRATIVE
PURPOSES ONLY

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SUBSURFACE TREATMENT DEVICES
SC – TYPE SEPARATOR

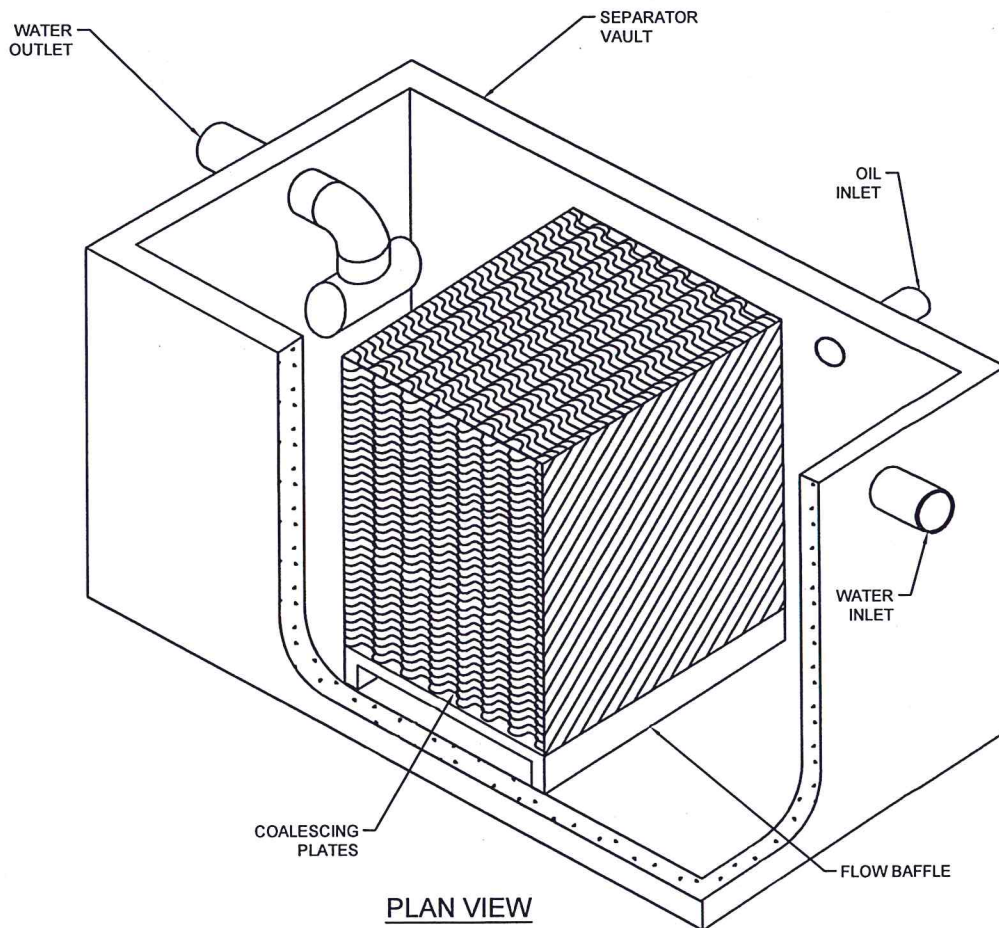
CONSTRUCTION STANDARDS AND DETAILS



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OIL/GRIT SEPARATOR:
CPS - SEPARATOR

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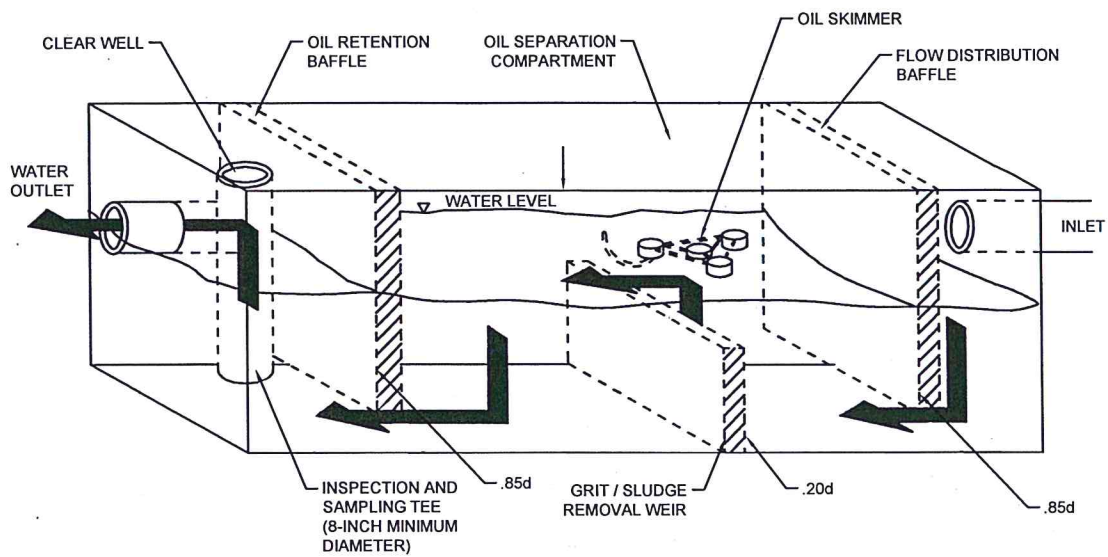
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SUBSURFACE TREATMENT DEVICES
CPS – SEPARATOR

CONSTRUCTION STANDARDS AND DETAILS



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CATCH BASIN VOLUME = 0.5 - 1.5 CUBIC YARDS

"d" = DEPTH OF VAULT

OIL/GRIT SEPARATOR:
API - SEPARATOR

NOTE: FOR ILLUSTRATIVE
PURPOSES ONLY

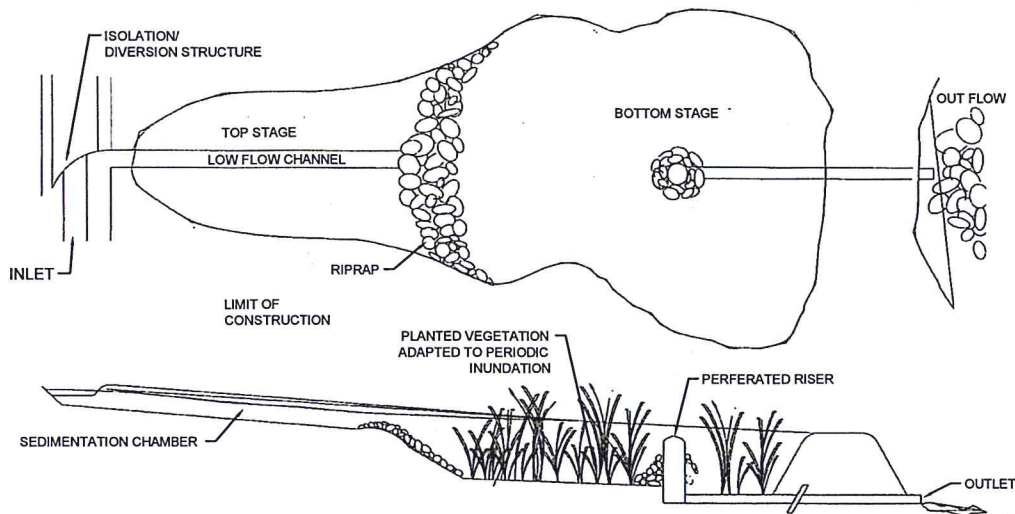
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SUBSURFACE TREATMENT DEVICES
API - SEPARATOR

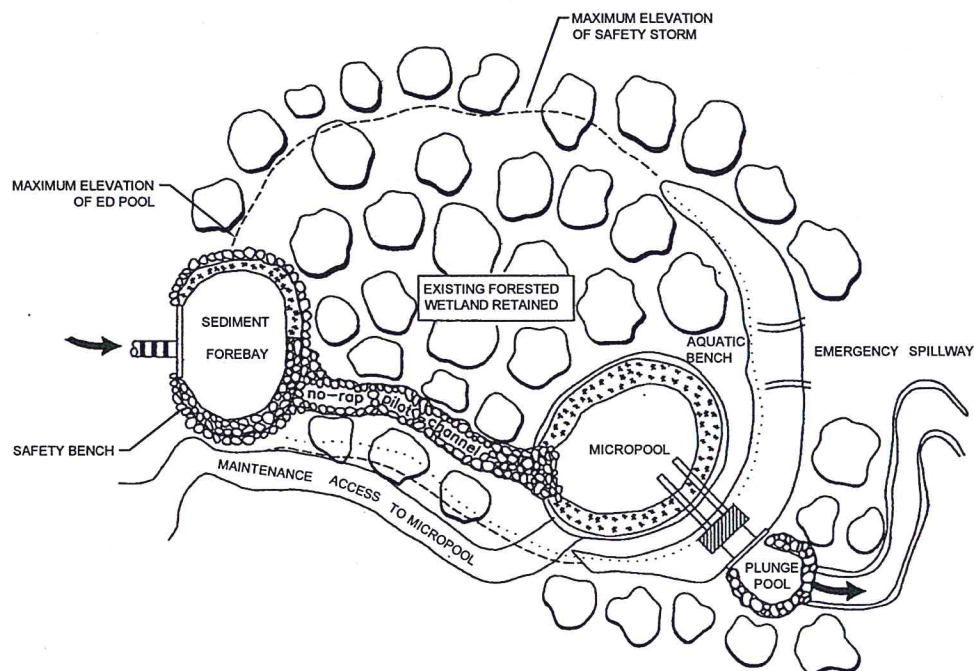
CONSTRUCTION STANDARDS AND DETAILS



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SCHEMATIC OF A TWO STAGE EXTENDED DETENTION BASIN (LCRA, 1998)



Source: Schueler, 1991.

SCHEMATIC OF AN ENHANCED EXTENDED DETENTION BASIN (SCHUELER, 1992)

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

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DRY EXTENDED DETENTION
BASIN

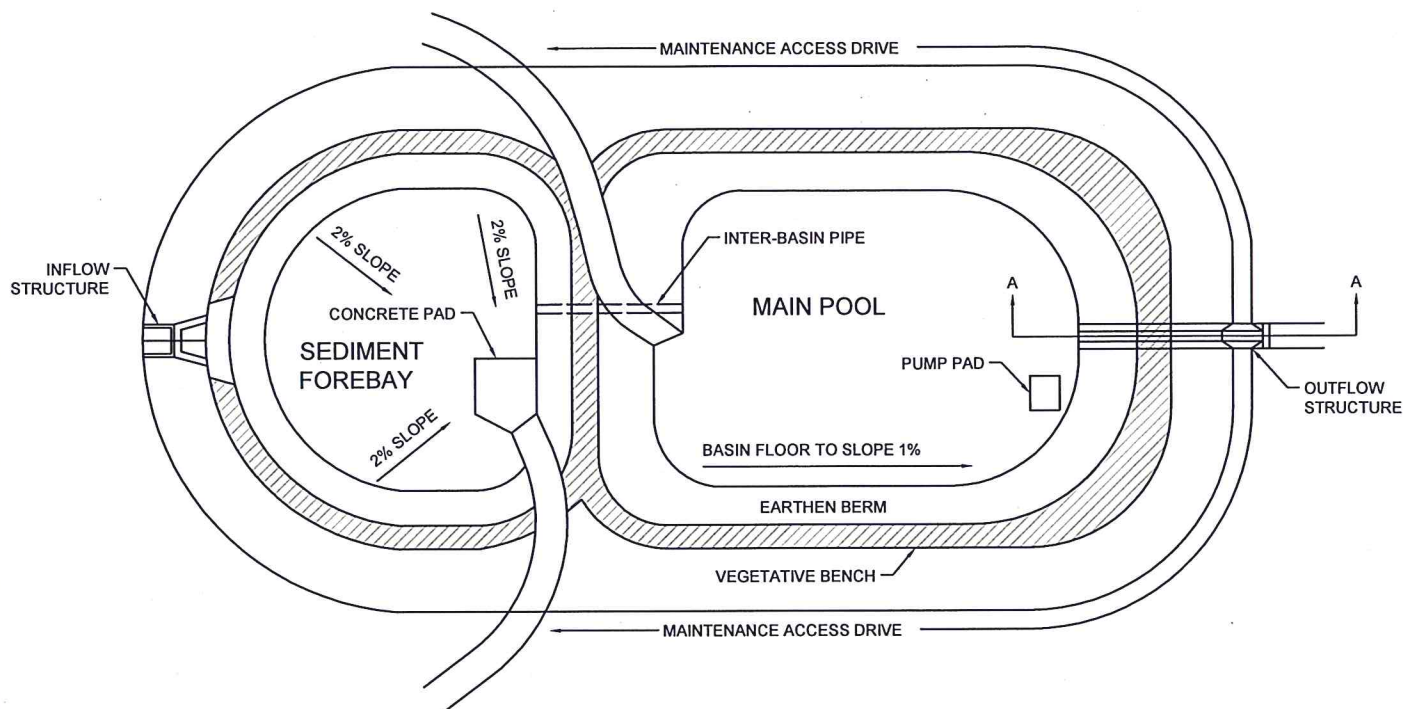
CONSTRUCTION STANDARDS AND DETAILS



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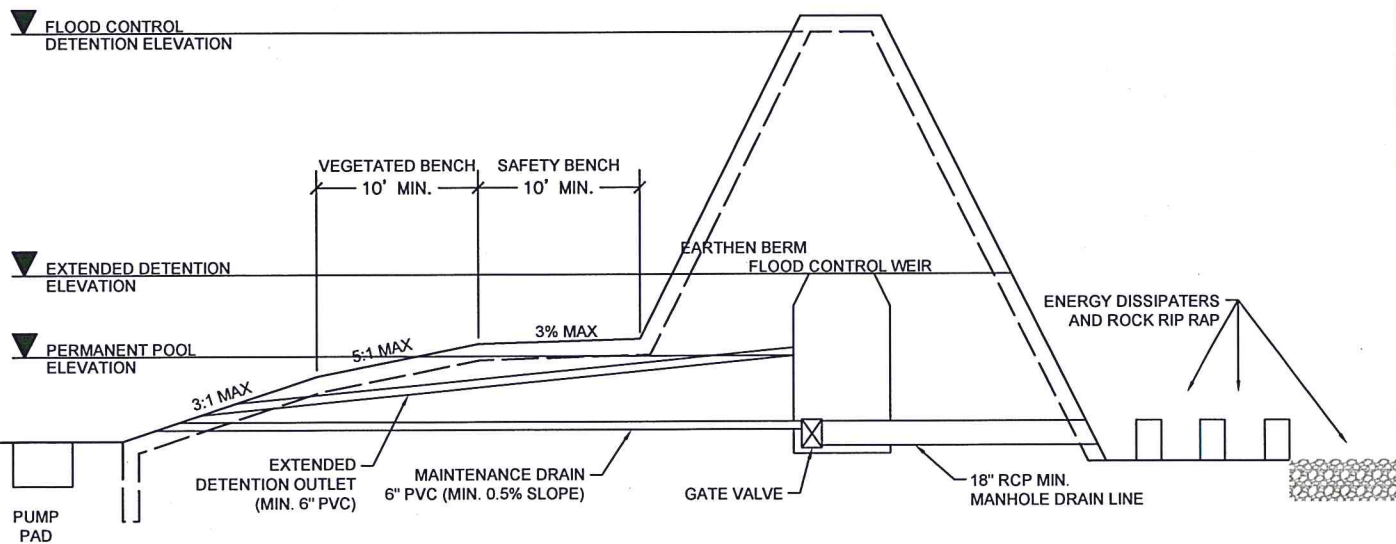
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▼ FLOOD CONTROL
DETENTION ELEVATION

▼ EXTENDED DETENTION
ELEVATION

▼ PERMANENT POOL
ELEVATION



SECTION A-A

NOTE: FOR ILLUSTRATIVE
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**WET
PONDS**

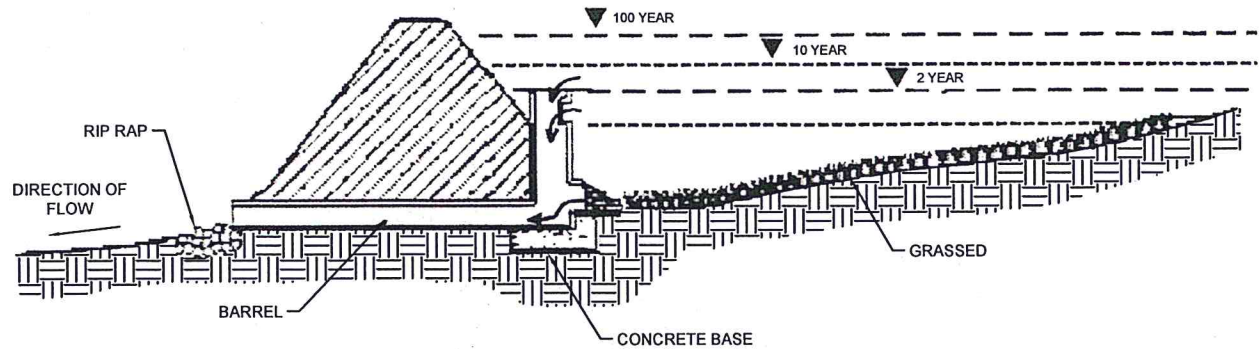
CONSTRUCTION STANDARDS AND DETAILS



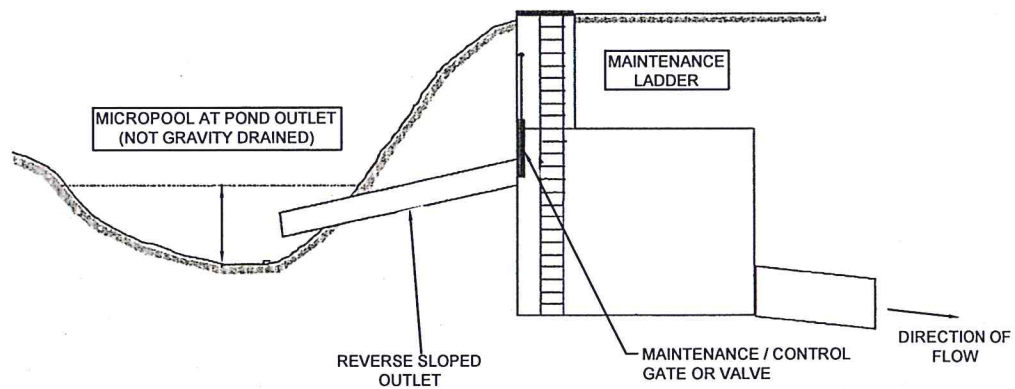
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TYPICAL DRY POND
Source: NVPDC, 1992.



DRY POND MICROPOOL AND REVERSED-SLOPE OUTLET PIPE
Source: Ontario Ministry of the Environment, 1999.

NOTE: FOR ILLUSTRATIVE
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DETENTION POND OUTLET FOR EROSION PROTECTION AND STORM WATER QUALITY BENEFITS

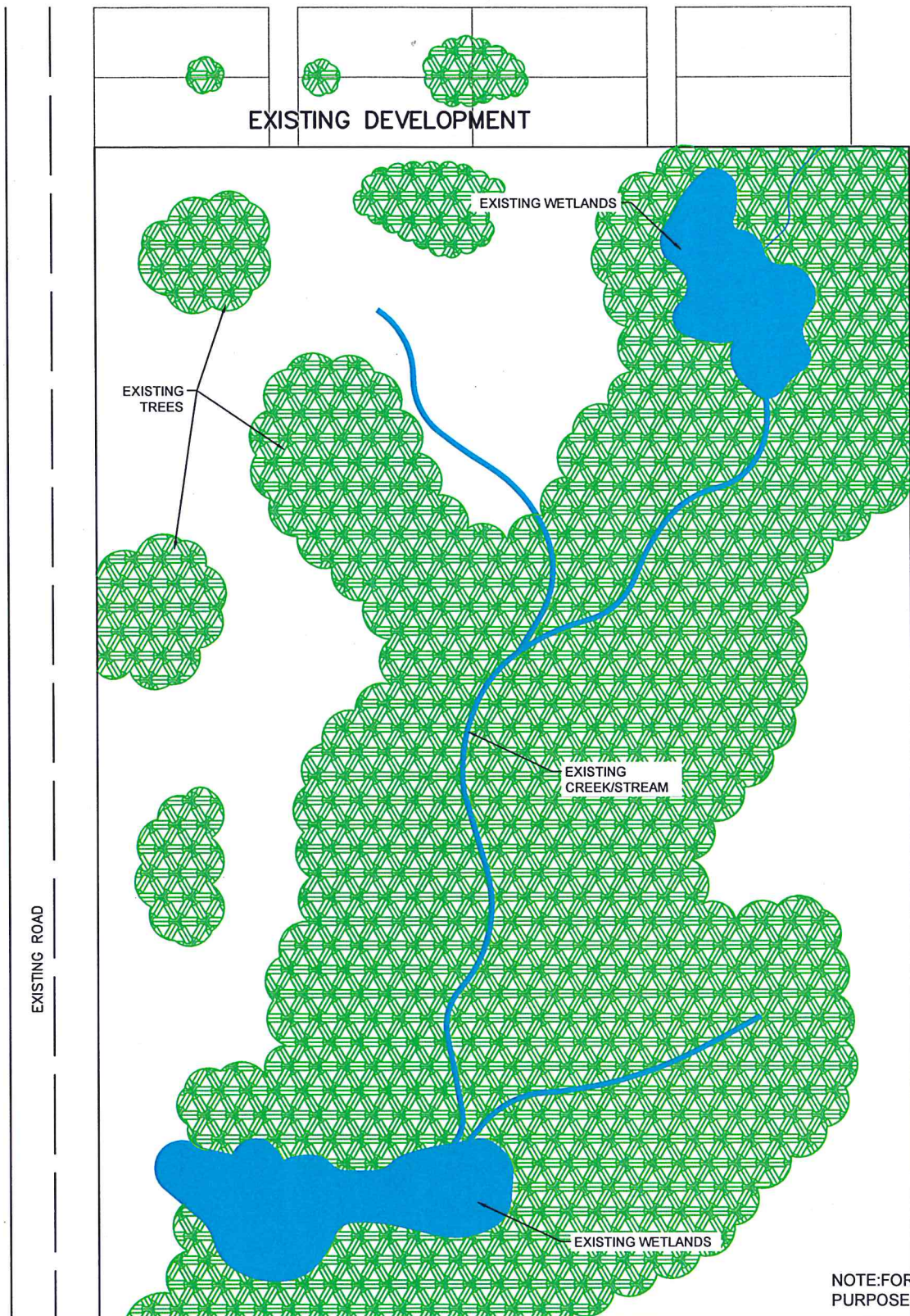
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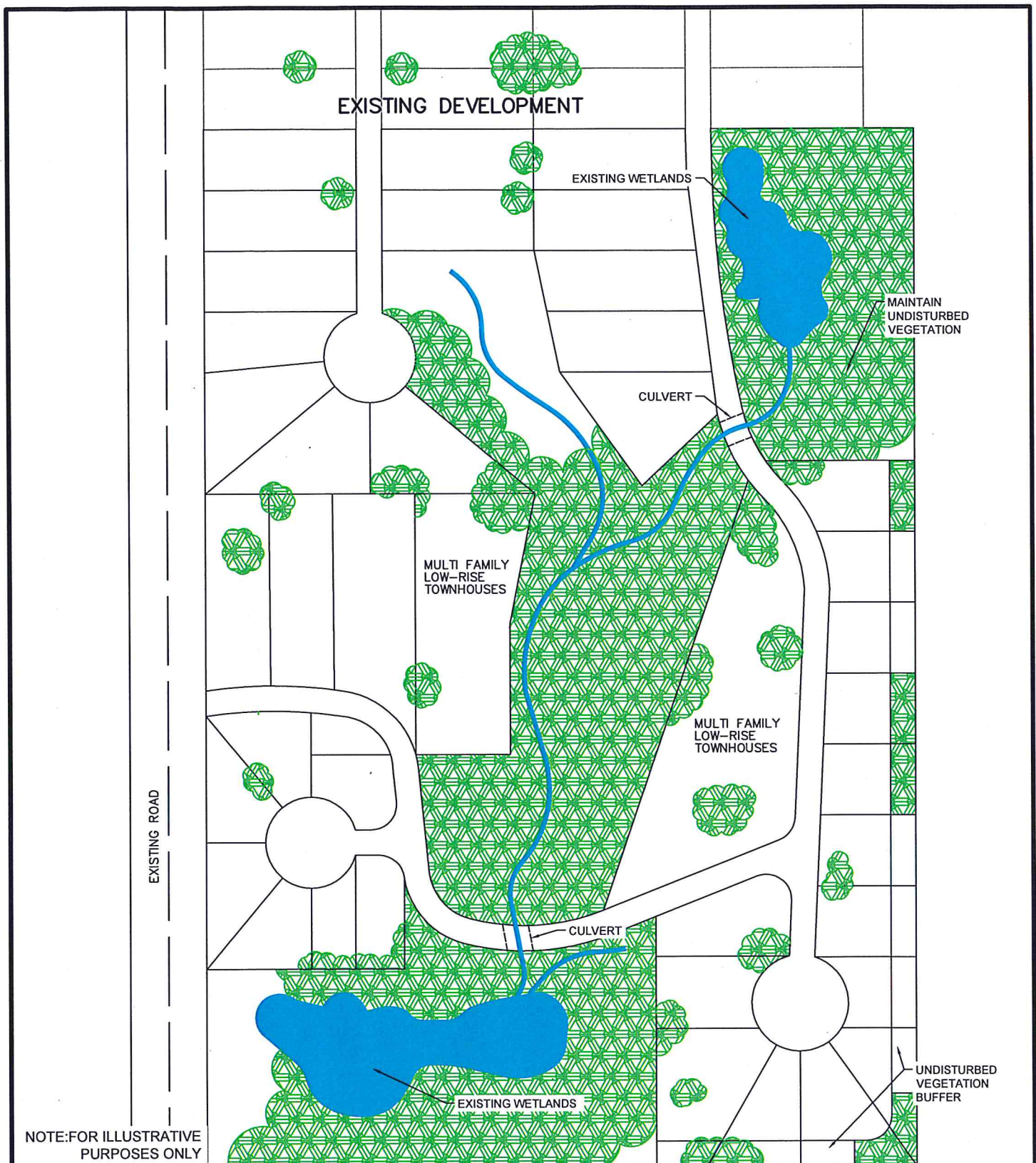
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**OPEN SPACE / CLUSTER DESIGN
PRE-PROJECT**

CONSTRUCTION STANDARDS AND DETAILS



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**OPEN SPACE / CLUSTER DESIGN
POST PROJECT**

CONSTRUCTION STANDARDS AND DETAILS



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**URBAN
FORESTRY**

CONSTRUCTION STANDARDS AND DETAILS



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